UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|---|---|---|---|---|
| 10/552,281 | 07/12/2006 | Markus Gesk | 10191/4099 | 2007 |

26646 7590 04/21/2009

KENYON & KENYON LLP
ONE BROADWAY
NEW YORK, NY 10004

| EXAMINER | |
|---|---|
| HOGAN, JAMES SEAN | |
| **ART UNIT** | **PAPER NUMBER** |
| 3752 | |

| MAIL DATE | DELIVERY MODE |
|---|---|
| 04/21/2009 | PAPER |

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

| Office Action Summary | Application No. | Applicant(s) | |
|---|---|---|---|
| | 10/552,281 | GESK ET AL. | |
| | Examiner | Art Unit | |
| | JAMES S. HOGAN | 3752 | |

*-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --*

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE *3* MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

1)☒ Responsive to communication(s) filed on *29 January 2009*.

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

4)☒ Claim(s) *8-14* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *8-14* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

**Application Papers**

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date *1/29/09*.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

## DETAILED ACTION

### *Response to Arguments*

1. Applicant's arguments with respect to claim 8 have been considered but are moot in view of the new ground(s) of rejection.

### *Claim Rejections - 35 USC § 103*

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

2. Claims 8-14 are rejected under 35 U.S.C. 103(a) as being unpatentable over U.S. Patent 6,039,271 to Reiter in view of U.S. Patent No 6,405,946 to Harata et al.

As per claim 8, Reiter teaches part of a method for producing and securing an apertured disk (34) for a fuel injector for a fuel-injection system of an internal combustion engine. Shown is an apertured disk having an opening contour (39) which ensures a complete passage for a fluid, is shown as a metallic sheet having a constant thickness and having introducing at least one spray-discharge opening (39) in the center region, and is secured by impressing the disk (34) into a valve seat of a fuel injector and by being welded around its bottom seam in such a way that a lower end face of the valve-seat member delimits an intake region of the apertured disk such that the at least one spray-discharge opening is covered. In step (b) of claim 8, Reiter does not teach material thickness reduction.

Harata et al shows reduced thickness in one region of a sheet disk shown in Figure 4 by "forming a depression" (Col. 4, line32-35) onto a disk (60) on a valve seat of a fuel injector and by being welded around its bottom seam. It is not known if the depression is formed by embossing or impressing, however, it should be noted that he patentability of a product does not depend on its method of production. If the product in the product-by-process claim is the same as or an obvious variant from a product in the prior art, the claim is unpatentable even though the prior product was made by a different process (see MPEP 2113). Therefore, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have reduced thickness in a material as in the disk of Reiter as shown by Harata et al, since it is known to reduce thickness by all forms of stamping and embossing, as both are known to have and affect on material by their implicit nature, and would further be desirable in order to provide a part with a desired thickness tolerance in order to ensure proper fitting into its designated placement within an apparatus.

As for, in step (c) of the claim, locating the opening in the region of reduced thickness, that thickness being reduced, (and as per claim 13) microscopically within the range of 0.05 mm to 0.01mm, that being the nature of material formed by impression, it would have been obvious to one having ordinary skill at the time the invention was made to have located the opening at a central point, as it is a natural location for such an opening.

Further, as in step (d) of the claim, the act of machining the sheet until an apertured disk has predefined outside dimensions attained is a known technique to one

of ordinary skill and does not hold any patentable weight as it is used universally in the fuel injector art.

As per claims 9 and 11, neither Reiter nor Harata et al teach a particular material, however, it would have been obvious to one having ordinary skill in the art at the time the invention was made to have selected as desired material for the disk, since it has been held to be within the skill of a worker to select a known material on the basis of its suitability for the intended use as a matter of obvious design choice See in re Leshin, 125 USPQ 416.

As per claim 10, distributing excess material thrown up by embossing by further rolling the material is a known metalworking technique whose use is not given any patentable weight as it is used universally in the art.

As per claim 12, the act of grinding off excess material is a well known technique of material reduction, to one of ordinary skill and does not hold any patentable weight as it is used universally in the art of material modification.

As per claim 14, Reiter teaches its spray-discharge opening as being formed by drilling, erosion, stamping (Col. 2, lines 52-43).

## ***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to JAMES S. HOGAN whose telephone number is (571)272-4902. The examiner can normally be reached on Mon-Fri, 6:00a-3:00p EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Len Tran can be reached on (571)272-1184. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/J. S. H./
Examiner, Art Unit 3752

/Len Tran/
Supervisory Patent Examiner, Art Unit 3752